



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,442	01/04/2007	Masato Yamamichi	2006_0779A	6602
52349 7590 03/09/2011 WENDEROTH, LIND & PONACK L.L.P. 1030 15th Street, N.W. Suite 400 East Washington, DC 20005-1503				
EXAMINER				
KANAAN, SIMON P				
ART UNIT		PAPER NUMBER		
2432				
NOTIFICATION DATE		DELIVERY MODE		
03/09/2011		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ddalecki@wenderoth.com

coa@wenderoth.com

**Office Action Summary****Application No.**

10/581,442

**Applicant(s)**

YAMAMICHI ET AL.

**Examiner**

SIMON KANAAN

**Art Unit**

2432

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-940)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This office action is in response to applicant's amendment filed on 11/30/2010 for Application No. 10/581442.
2. Applicant's arguments/amendments with respect to the Claim Rejections - 35 USC § 101 in the previously filed office action are persuasive and therefore the previously filed Claim Rejections - 35 USC § 101 has been withdrawn.
3. Applicant's arguments filed 11/30/2010 for claims 1-16, 18-19, and 22-23 have been considered but are persuasive however upon further search and consideration a new art rejection was found and is shown below.

**Claim Rejections - 35 USC § 112**

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 7-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per Claims 7-15, recite the elements "units" which is a means (or step) plus function limitation that invokes 35 U.S.C. 112, sixth paragraph. However, the written description fails to clearly link or associate the disclosed structure, material, or acts to the claimed function such that one of ordinary skill in the art would recognize what structure, material, or acts perform the claimed function.

Applicant is required to:

(a) Amend the claim so that the claim limitation will no longer be a means (or step) plus function limitation under 35 U.S.C. 112, sixth paragraph; or

(b) Amend the written description of the specification such that it clearly links or associates the corresponding structure, material, or acts to the claimed function without introducing any new matter (35 U.S.C. 132(a)); or

(c) State on the record where the corresponding structure, material, or acts are set forth in the written description of the specification that perform the claimed function. For more information, see 37 CFR 1.75(d) and MPEP §§ 608.01(o) and 2181.

For a computer-implemented means-plus-function claim limitation that invokes 35 U.S.C. 112, sixth paragraph, the corresponding structure is required to be more than simply a general purpose computer or microprocessor. The corresponding structure for a computer-implemented function must include the algorithm as well as the general purpose computer or microprocessor.

#### **Claim Rejections - 35 USC § 103**

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-16, 18-19, and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino (US Patent No: 6,337,621 B1) hereinafter referred to as Ogino in view of Hosono Shizu (JP2002300637, Abstract in English furnished in IDS) hereinafter referred to as Shizu

As per claim 1, Ogino discloses a theft prevention system comprising: an object control device for controlling a prescribed operation of an object targeted for theft prevention; and a device for instructing the object control device to control the prescribed operation, wherein the device includes: an instruction transmitting unit operable to transmit to the object control device a warning mode instruction indicating to set a warning mode; -Ogino, figure 4, teaches if abnormal condition detected it sends a mayday message and Ogino, column 2, lines 54-67, teaches examples where the response center sends the vehicle, the mobile control device, message to un-luck the doors or cut the ignition off depending on the situation

a mode setting unit operable to set the warning mode on receipt of the warning mode instruction; -Ogino, column 4, lines 41 and 42, determine whether to leave device in panic state or return to normal state

and an object control unit operable, when the warning mode has been set, to control the prescribed operation exclusively in accordance with the control instruction from the device. - Ogino, column 2, line 43, teaches engine disable, i.e. the mobile terminal has total control on the engine cutoff

But does not disclose that the device interacting with the object control device is a mobile device

However, Rigmaiden, column 6, lines 13-29, teaches a mobile device receiving a signal from the vehicle which is the object control device. The signal contains information regarding the state of the object control device. The remote device can set the alarm assembly to active or inactive and this can be done discretely

It would have been obvious at the time of the invention for one of the ordinary skill in the art to modify the theft prevention method of Ogino by incorporating the method of monitoring on a mobile device a vehicle for theft prevention because it would give the user the ability to discretely monitor the interior of the vehicle. – Rigmaiden, column 6, lines 27-29.

But Ogino in view of Rigmaiden does not teach an electronic key receiving unit operable to receive an electronic key from the object control device; an electronic key storage unit; an electronic key writing unit operable to write the received electronic key to the electronic key storage unit; and a control instructing unit operable to instruct the object control device to control the prescribed operation, using the stored electronic key, and wherein the object control device includes: an instruction receiving unit operable to receive the warning mode instruction; an electronic key generating unit operable to generate the electronic key on receipt of the warning mode instruction; an electronic key transmitting unit operable to transmit the generated electronic key to the mobile terminal device;

However, Shizu teaches an electronic key receiving unit operable to receive an electronic key from the object control device; an electronic key storage unit; an electronic key writing unit operable to write the received electronic key to the electronic key storage unit; and a control instructing unit operable to instruct the object control device to control the prescribed operation, using the stored electronic key, and wherein the object control device includes: an instruction receiving unit operable to receive the warning mode instruction; an electronic key generating unit operable to generate the electronic key on receipt of the warning mode instruction; an electronic key transmitting unit operable to transmit the generated electronic key to the mobile terminal device; - Shizu, abstract translation in English, teaches one device sending a message to

a second device where the second device sends a certification code, i.e. key, to execute an unlock/lock on device.

It would have been obvious at the time of the invention to modify the mayday alert system of Ogino with the sending and receiving of certification code to lock/unlock the device as it would add an additional layer of security as to prevent the thief from disabling the mayday mode without the knowledge of the certification code.

As per claim 2, Ogino discloses a device for instructing an object control device to control a prescribed operation of an object targeted for theft prevention, comprising: an instruction transmitting unit operable to transmit to the object control device a warning mode instruction indicating to set a warning mode; -Ogino, column 4, lines 41 and 42, determine whether to leave device in panic state or return to normal state and figure 4, teaches if abnormal condition detected it sends a mayday message

But does not disclose that the device interacting with the object control device is a mobile device

However, Rigmaiden, column 6, lines 13-29, teaches a mobile device receiving a signal from the vehicle which is the object control device. The signal contains information regarding the state if the object control device. The remote device can set the alarm assembly to active or inactive and this can be done discretely

It would have been obvious at the time of the invention for one of the ordinary skill in the art to modify the theft prevention method of Ogino by incorporating the method of monitoring

on a mobile device a vehicle for theft prevention because it would give the user the ability to discretely monitor the interior of the vehicle. – Rigmaiden, column 6, lines 27-29.

But Ogino in view of Rigmaiden does not disclose an electronic key receiving unit operable to receive an electronic key from the object control device; an electronic key storage unit; an electronic key writing unit operable to write the received electronic key to the electronic key storage unit; and a control instructing unit operable to instruct the object control device to control the prescribed operation, using the stored electronic key.

However, Shizu teaches an electronic key receiving unit operable to receive an electronic key from the object control device; an electronic key storage unit; an electronic key writing unit operable to write the received electronic key to the electronic key storage unit; and a control instructing unit operable to instruct the object control device to control the prescribed operation, using the stored electronic key. - Shizu, abstract translation in English given in IDS, teaches one device sending a message to a second device where the second device sends a certification code, i.e. key, to execute an unlock/lock on device.

It would have been obvious at the time of the invention to modify the mayday alert system of Ogino with the sending and receiving of certification code to lock/unlock the device as it would add an additional layer of security as to prevent the thief from disabling the mayday mode without the knowledge of the certification code.

As per claim 3, Ogino in view of Rigmaiden and further in view of Shizu discloses the mobile terminal device of claim 2, wherein the instruction transmitting unit further transmits to the object control device a normal mode instruction indicating to set a normal mode, and the



mobile terminal device further comprises: a completion notification receiving unit operable to receive from the object control device a completion notification that indicates completion of normal mode setting; and an electronic key deleting unit operable to delete the stored electronic key on receipt of the completion notification. –Ogino, figure 8, teaches sending a confirmation message to indicate armed state and Shizu, abstract translation in English given in IDS, teaches sending a certification code, it would have been obvious at the time of the invention to delete the certification code upon completing the action it was used for as to decrease the possibility of a thief obtaining it.

As per claim 4, Ogino in view of Rigmaiden and further in view of Shizu discloses the mobile terminal device of claim 2, wherein the electronic key storage unit is a portable memory card. - Shizu, abstract translation in English given in IDS, teaches the certification code is on a cellular phone which is a portable mobile device.

As per claim 5, Ogino in view of Rigmaiden and further in view of Shizu discloses the mobile terminal device of claim 2, wherein the mobile terminal device is a mobile telephone, the instruction transmitting unit transmits the warning mode instruction via a mobile telephone network, and the electronic key receiving unit receives the electronic key via the mobile telephone network. –Ogino, figure 10, teaches cellular communication.

As per claim 6, Ogino in view of Rigmaiden and further in view of Shizu discloses the mobile terminal device of claim 2, wherein the control instructing unit instructs the object

control device to control the prescribed operation, by transmitting the electronic key and control instruction information prescribing the control, by short range radio to the object control device. -Ogino, column 1, lines 58-59, teaches using radio waves as the carrier wave for the transmission of data, ID code, arming instruction.

As per claims 7 and 17, Ogino discloses an object control device for controlling a prescribed operation of an object targeted for theft prevention in response to a control instruction from a device, comprising: an instruction receiving unit operable to receive a warning mode instruction indicating to set a warning mode; -Ogino, column 4, lines 41 and 42, determine whether to leave device in panic state or return to normal state and figure 4, teaches if abnormal condition detected it sends a mayday message

a mode setting unit operable to set the warning mode on receipt of the warning mode instruction; -Ogino, column 4, lines 41 and 42, determine whether to leave device in panic state or return to normal state

and an object control unit operable, when the warning mode has been set, to control the prescribed operation exclusively in accordance with the control instruction from the device- Ogino, column 4, lines 41 and 42, determine whether to leave device in panic state or return to normal state

But does not disclose that the device interacting with the object control device is a mobile device

However, Rigmaiden, column 6, lines 13-29, teaches a mobile device receiving a signal from the vehicle which is the object control device. The signal contains information regarding

the state of the object control device. The remote device can set the alarm assembly to active or inactive and this can be done discretely

It would have been obvious at the time of the invention for one of ordinary skill in the art to modify the theft prevention method of Ogino by incorporating the method of monitoring on a mobile device a vehicle for theft prevention because it would give the user the ability to discretely monitor the interior of the vehicle. – Rigmaiden, column 6, lines 27-29.

But Ogino in view of Rigmaiden does not disclose an electronic key generating unit operable to generate an electronic key; an electronic key transmitting unit operable to transmit the generated electronic key to the mobile terminal device;

However, Shizu teaches an electronic key generating unit operable to generate an electronic key; an electronic key transmitting unit operable to transmit the generated electronic key to the mobile terminal device; - Shizu, abstract translation in English, teaches one device sending a message to a second device where the second device sends a certification code, i.e. key, to execute an unlock/lock on device.

It would have been obvious at the time of the invention to modify the mayday alert system of Ogino with the sending and receiving of certification code to lock/unlock the device as it would add an additional layer of security as to prevent the thief from disabling the mayday mode without the knowledge of the certification code.

As per claim 8, Ogino in view of Rigmaiden and further in view of Shizu discloses the object control device of claim 7, wherein when the warning mode has been set, the object control

unit prohibits a prescribed operation from being performed using a mechanical key. –Ogino, column 2, line 43, teaches engine cutoff, i.e. disable of mechanical key.

As per claim 9, Ogino in view of Rigmaiden and further in view of Shizu discloses the object control device of claim 7, wherein the instruction receiving unit further receives from the mobile terminal device a normal mode instruction indicating to set a normal mode, on receipt of the normal mode instruction, the mode setting unit further sets the normal mode, the object control device further comprises a completion notification transmitting unit operable to transmit to the mobile terminal device a completion notification indicating completion of normal mode setting, and when the normal mode has been set, the object control unit prohibits the prescribed operation from being performed in accordance with the control instruction from the mobile terminal device using the electronic key. –Ogino, figure 8, teaches sending a confirmation message to indicate armed state and Shizu, abstract translation in English given in IDS, teaches sending a certification code, it would have been obvious at the time of the invention to delete the certification code upon completing the action it was used for as to decrease the possibility of a thief obtaining it.

As per claim 10, Ogino in view of Rigmaiden and further in view of Shizu discloses the object control device of claim 9, wherein when the normal mode has been set, the object control unit controls the prescribed operation of the target object in accordance with a mechanical key. – Ogino, column 2, line 43, teaches engine cutoff, i.e. disable of mechanical key. But when system is in normal mode the mechanical key would operate the vehicle as normal.

As per claim 11, Ogino in view of Rigmaiden and further in view of Shizu discloses the object control device of claim 7, wherein the instruction receiving unit receives the warning mode instruction from the mobile terminal device. –Ogino, figure 10, teaches cellular communication i.e. from a mobile device.

As per claim 12, Ogino in view of Rigmaiden and further in view of Shizu discloses the object control device of claim 7, wherein the instruction receiving unit receives the warning mode instruction from a mobile terminal device other than the mobile terminal device. –Ogino, figure 1, teaches cellular communication of warning between multiple mobile devices.

As per claim 13, Ogino in view of Rigmaiden and further in view of Shizu discloses the object control device of claim 7, wherein the target object is provided with a sensor unit operable to output the warning mode instruction to the object control device on sensing an irregularity, and the instruction receiving unit receives the warning mode instruction from the sensor unit. - Ogino, column 4, lines 41 and 42, determine whether to leave device in panic state or return to normal state and figure 4, teaches if abnormal condition detected it sends a mayday message

As per claim 14, Ogino in view of Rigmaiden and further in view of Shizu discloses the object control device of claim 7, wherein the mobile terminal device is a mobile telephone, and the instruction receiving unit receives the warning mode instruction from the mobile telephone

via a mobile telephone network. –Ogino, figure 1, teaches cellular communication of warning between multiple mobile devices.

As per claim 15, Ogino in view of Rigmaiden and further in view of Shizu discloses the object control device of claim 7, wherein the object control unit receives the electronic key and control instruction prescribing the control of the prescribed operation of the target object from the mobile terminal device by short-range radio, and controls the prescribed operation in accordance with the received control instruction using the received electronic key. –Ogino, column 1, lines 58-59, teaches using radio waves as the carrier wave for the transmission of data, ID code, arming instruction.

As per claims 16, and 18-19, Ogino discloses a theft prevention system including an object control device for controlling a prescribed operation of an object targeted for theft prevention, a first terminal device for transmitting a warning instruction to the object control device and a second terminal device for instructing the object control device to control the prescribed operation, the first terminal device comprising: an instruction transmitting unit operable to transmit to the object control device a warning mode instruction indicating to set a warning mode, -Ogino, column 4, lines 41 and 42, determine whether to leave device in panic state or return to normal state and figure 4, teaches if abnormal condition detected it sends a mayday message

and a control instructing unit operable to instruct the object control device to control the prescribed operation—Ogino, column 2, line 43, teaches engine disable, i.e. the mobile terminal has total control on the engine cutoff

and the object control device comprising: an instruction receiving unit operable to receive the warning mode instruction; a mode setting unit operable to set the warning mode on receipt of the warning mode instruction; —Ogino, column 2, line 43, teaches engine disable, i.e. the mobile terminal has total control on the engine cutoff, the engine cutoff would be a warning mode instruction

and an object control unit operable, when the warning mode has been set, to control the prescribed operation exclusively in accordance with the control instruction from the terminal device —Ogino, column 4, lines 41 and 42, determine whether to leave device in panic state or return to normal state, i.e. the device can remain in warning mode until the second mobile device instructs it to leave warning mode.

But does not disclose that the device interacting with the object control device is a mobile device

However, Rigmaiden, column 6, lines 13-29, teaches a mobile device receiving a signal from the vehicle which is the object control device. The signal contains information regarding the state of the object control device. The remote device can set the alarm assembly to active or inactive and this can be done discretely

It would have been obvious at the time of the invention for one of ordinary skill in the art to modify the theft prevention method of Ogino by incorporating the method of monitoring

on a mobile device a vehicle for theft prevention because it would give the user the ability to discretely monitor the interior of the vehicle. – Rigmaiden, column 6, lines 27-29.

But Ogino in view of Rigmaiden does not teach an electronic key storage unit; an electronic key writing unit operable to write the received electronic key to the electronic key storage unit; an electronic key generating unit operable to generate the electronic key on receipt of the warning mode instruction; and the second mobile device comprising: an electronic key receiving unit operable to receive an electronic key from the object control device; an electronic key transmitting unit operable to transmit the generated electronic key to the mobile terminal device; and the second mobile device comprising: an electronic key receiving unit operable to receive an electronic key from the object control device;

However, Shizu teaches an electronic key storage unit; an electronic key writing unit operable to write the received electronic key to the electronic key storage unit; an electronic key generating unit operable to generate the electronic key on receipt of the warning mode instruction; and the second mobile device comprising: an electronic key receiving unit operable to receive an electronic key from the object control device; an electronic key transmitting unit operable to transmit the generated electronic key to the mobile terminal device; and the second mobile device comprising: an electronic key receiving unit operable to receive an electronic key from the object control device; - Shizu, abstract translation in English, teaches one device sending a message to a second device where the second device sends a certification code, i.e. key, to execute an unlock/lock on device.

It would have been obvious at the time of the invention to modify the mayday alert system of Ogino with the sending and receiving of certification code to lock/unlock the device as



it would add an additional layer of security as to prevent the thief from disabling the mayday mode without the knowledge of the certification code.

As per claims 22 and 23, Ogino discloses a control method used by an object control device that controls a prescribed operation of an object targeted for theft prevention in response to a control instruction from a terminal device comprising: receiving a warning mode instruction indicating to set a warning mode; -Ogino, figure 4, teaches if abnormal condition detected it sends a mayday message

setting the warning mode when the warning mode instruction is received; -Ogino, column 4, lines 41 and 42, determine whether to leave device in panic state or return to normal state

and controlling the prescribed operation exclusively in accordance with the control instruction from the terminal device -Ogino, column 2, line 43, teaches engine disable, i.e. the mobile terminal has total control on the engine cutoff i.e. would disable use of mechanical key

But does not disclose that the device interacting with the object control device is a mobile device

However, Rigmaiden, column 6, lines 13-29, teaches a mobile device receiving a signal from the vehicle which is the object control device. The signal contains information regarding the state if the object control device. The remote device can set the alarm assembly to active or inactive and this can be done discretely

It would have been obvious at the time of the invention for one of the ordinary skill in the art to modify the theft prevention method of Ogino by incorporating the method of monitoring

on a mobile device a vehicle for theft prevention because it would give the user the ability to discretely monitor the interior of the vehicle. – Rigmaiden, column 6, lines 27-29.

But Ogino in view of Rigmaiden does not disclose generating an electronic key; transmitting the generated electronic key to the mobile terminal device;

However Shizu teaches generating an electronic key; transmitting the generated electronic key to the mobile terminal device; - Shizu, abstract translation in English, teaches one device sending a message to a second device where the second device sends a certification code, i.e. key, to execute an unlock/lock on device.

It would have been obvious at the time of the invention to modify the mayday alert system of Ogino with the sending and receiving of certification code to lock/unlock the device as it would add an additional layer of security as to prevent the thief from disabling the mayday mode without the knowledge of the certification code.

### **Conclusion**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Simon Kanaan whose telephone number is (571)270-3906. The examiner can normally be reached on Mon-Thurs 7:30-5:00 EST.

If attempts to reach the above noted Examiner by telephone are unsuccessful, the Examiner's supervisor, Gilberto Barron, can be reached at the following telephone number: (571) 272-3799.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/SIMON KANAAN/  
Examiner, Art Unit 2432

/Benjamin E Lanier/  
Primary Examiner, Art Unit 2432